



# WELLESLEY CLIMATE ACTION PLAN SUMMARY

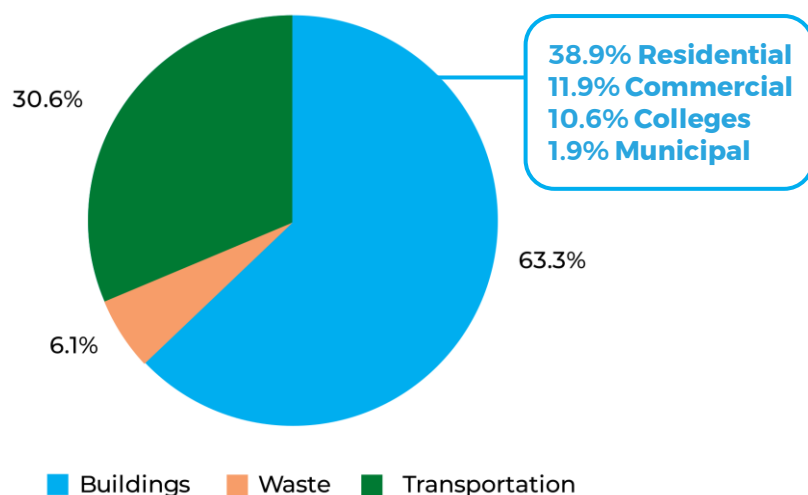
## WHAT IS A CLIMATE ACTION PLAN?

A roadmap for lowering Wellesley's greenhouse gas (GHG) emissions to Net zero by 2050, and for building resilience to climate change impacts.

The plan includes recommended actions and metrics for measuring progress on action implementation.

## What are the sources of GHG emissions in Wellesley?

Source: Town of Wellesley, 2021



## What are Wellesley's GHG emissions reduction goals?

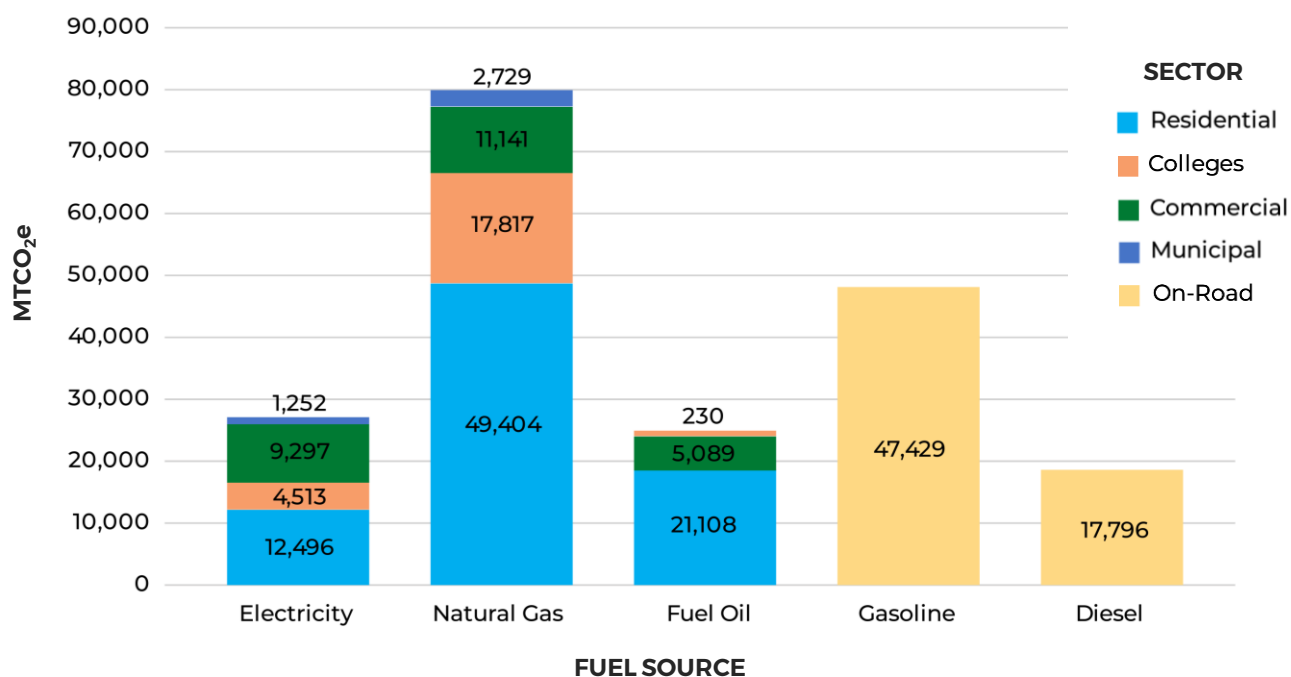
↓ **50%**  
Reduction by 2030  
(compared to 2007 levels)

↓ **75%**  
Reduction by 2040  
(compared to 2007 levels)

**0**  
Net GHG Emissions  
by 2050

## What fuel sources, by sector, create GHG emissions in Wellesley?

Source: Town of Wellesley, 2021



# PATHWAYS

The Climate Action Plan is organized into six pathways.



## GOVERNANCE

Prioritize climate change in municipal government and support state and federal policies that advance Wellesley's goals.



## ENERGY

Reduce energy demand and increase supply of reliable and affordable carbon-free electricity.



## BUILDINGS

Minimize greenhouse gas emissions from Wellesley's building stock.



## MOBILITY

Facilitate the transition to low- and zero-emissions transportation.



## NATURAL RESOURCES

Protect and enhance Wellesley's natural resources to maximize their climate and resilience benefits.

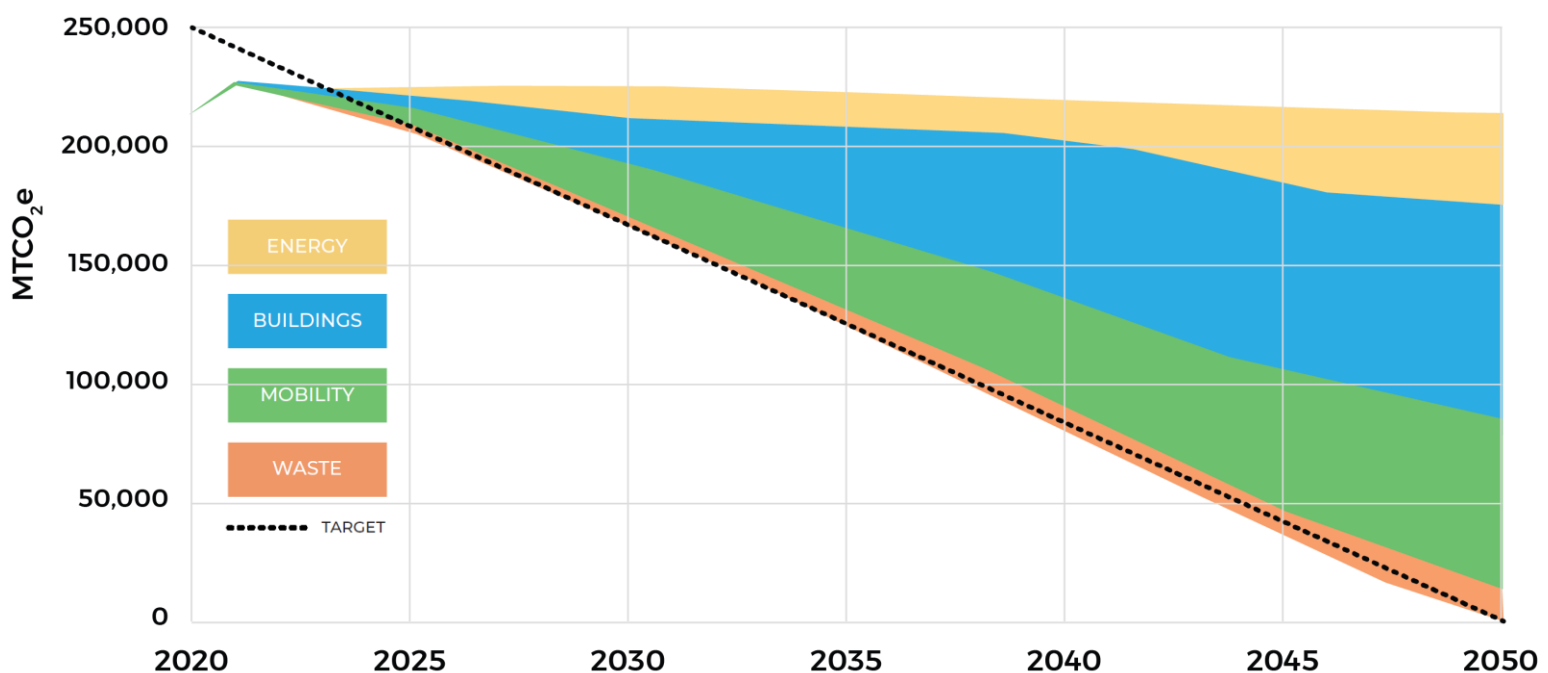


## WASTE

Foster a transition to zero waste and increase use of the Recycling and Disposal Facility.

## A model of possible GHG emissions reductions by pathway

The colored wedges on the graph correspond to GHG reductions expected for pathway-specific strategies in the Climate Action Plan.





## GOVERNANCE: GOALS, STRATEGIES, AND ACTIONS

Goal 1	Town government leads by example and is accountable for implementation of the Climate Action Plan.
Goal 2	Climate action beyond town borders supports progress toward Wellesley's climate goals.
Goal 3	Methane emissions from natural gas infrastructure are reduced.
Goal 4	Municipal systems and infrastructure are resilient to impacts of climate change.
<b>Strategy: Integrate sustainability into the policies and executive operations of the town.</b>	
Action	Change Town Bylaws so that the Sustainability Director reports directly to Executive Director of General Government Services.
Action	Work with IT to establish web-based dashboard to track Climate Action Plan progress to provide information, accountability, and transparency.
<b>Strategy: Integrate sustainability and resilience into systems and processes.</b>	
Action	Incorporate GHG reductions and other sustainability considerations into the budget process, including capital planning and prioritization.
Action	Develop an evaluation framework/tool to assist departments with sustainability analysis of proposed projects and initiatives.
<b>Strategy: Engage the community in a town-wide effort to implement the Climate Action Plan.</b>	
Action	Launch a program to coordinate community education and engage the public in initiatives to support Climate Action Plan implementation.
Action	Continue to enhance climate change and sustainability education through Wellesley Public Schools' curriculum, activities, and operations.
Action	Coordinate messaging concerning Climate Action Plan implementation and related sustainability measures with Public Information Officer and relevant town departments.
<b>Strategy: Pursue local and regional partnerships and support climate-friendly state rules and policies.</b>	
Action	Collaborate with other communities to build local and regional decarbonization efforts.
Action	Identify and evaluate opportunities to advocate for state laws and policies that will further Climate Action Plan goals and other sustainability priorities.
<b>Strategy: Adopt a triage and transition approach to reducing methane emissions.</b>	
Action	Identify and track gas leaks in Wellesley, particularly the highest volume leaks that have the greatest environmental impact.
Action	Advocate with National Grid for repair of Wellesley's highest volume leaks.
Action	Advocate at state level for repair of highest volume leaks to reduce methane emissions during state transition to fossil-fuel-free alternatives.
Action	Educate the public about methane emissions and about safe, fossil-fuel-free alternatives for heating, cooling, and cooking.
<b>Strategy: Identify municipal actions to build resilience.</b>	
Action	Develop a Hazard Mitigation Plan.
Action	Strengthen emergency preparedness and communications to reach the public in Wellesley, as recommended in the Town's 2020 Municipal Vulnerability Preparedness Summary of Findings Report.



## ENERGY: GOALS, STRATEGIES, AND ACTIONS

<b>Goal 1</b>	<b>Carbon-free sources provide 100% of Wellesley's electricity by 2050.</b>
<b>Goal 2</b>	<b>Energy is used in ways that foster decarbonization through efficiency, beneficial electrification, and demand curve management.</b>
<b>Strategy: Accelerate the installation of local renewable energy generation and storage in Wellesley.</b>	
<b>Action</b>	Identify opportunities for and install solar and, where appropriate, energy storage on municipal buildings.
<b>Action</b>	Design and deliver outreach programs to encourage the installation of solar and energy storage on residential, commercial, and institutional properties.
<b>Action</b>	Work with other municipal light plants and key partners to advocate for State incentives for local renewable installations, energy storage, and other emissions reduction programs in municipal utility communities.
<b>Action</b>	Explore opportunities for ground-mounted solar in the solar district and for local installations of geothermal and wind projects.
<b>Strategy: Maximize amount and diversify the non-emitting energy purchased by the MLP.</b>	
<b>Action</b>	Advocate for access to State initiatives for procuring non-emitting energy sources.
<b>Action</b>	Identify and directly enter into Power Purchase Agreements for non-emitting energy sources.
<b>Strategy: Use electricity rates, technology, and incentive programs to optimize emissions reductions in the management of electricity demand.</b>	
<b>Action</b>	Design 'Time of Use' rates that incentivize decarbonization actions, shift and reduce system peak load, and promote more efficient use of electricity.
<b>Action</b>	Design MLP's energy efficiency incentive programs to optimize impact, including an energy conservation campaign to educate residents and businesses on how to best use electricity, avoid waste, and reduce GHGs.
<b>Action</b>	Design and implement voluntary and automated demand response programs.
<b>Action</b>	Reduce peak demand and create a resilience enhancement plan utilizing energy storage, critical load management and microgrids.
<b>Action</b>	Look for opportunities to develop Virtual Power Plants that aggregate distributed energy storage and flexible demand resources in ways that optimize real time energy costs and carbon content.
<b>Action</b>	Promote and support beneficial electrification programs that take into account the electrical system load profile.
<b>Action</b>	Support building electrical service upgrades and local infrastructure development to fully enable renewable energy generation, energy storage, and beneficial electrification.



## BUILDINGS: GOALS, STRATEGIES, AND ACTIONS

<b>Goal 1</b>	<b>All new construction is net zero emissions by 2025.</b>
<b>Goal 2</b>	<b>Existing buildings are upgraded to net zero emissions by 2050.</b>
<b>Strategy: Drive regulatory action on net zero building standards.</b>	
<b>Action</b>	Advocate for the inclusion of fossil fuel free development in the upcoming Massachusetts net zero energy Stretch Code.
<b>Action</b>	Adopt Massachusetts opt-in net zero energy Stretch Code as soon as available.
<b>Action</b>	Follow the progress of Home Rule petitions in other towns for the purpose of determining the potential viability of fossil fuel free building requirements in Wellesley.
<b>Action</b>	Incorporate greenhouse gas emissions goals into Wellesley planning processes and zoning bylaws for new development and Design Review.
<b>Strategy: Promote the benefits of net zero development.</b>	
<b>Action</b>	Provide information, training, and incentives for local developers and contractors to build to net zero standards in Massachusetts.
<b>Strategy: Lead by example through municipal action.</b>	
<b>Action</b>	Develop upgrade/retrofit plan for each municipal building to achieve New Buildings Institute net zero ready energy use intensity (EUI) recommendations by 2040.
<b>Action</b>	Develop and implement occupant behavior programs to optimize energy efficiency of municipal buildings.
<b>Strategy: Support conversion of Wellesley homes to all-electric systems.</b>	
<b>Action</b>	Design and deliver energy conservation and beneficial electrification outreach programs specific to home age, fuel, and equipment types.
<b>Action</b>	Establish a Climate Coach program that will support residential energy conservation and beneficial electrification.
<b>Action</b>	Promote incentive programs for homeowners and/or builders/contractors to encourage energy conservation and conversion of homes to all-electric systems.
<b>Action</b>	Work with realtor interest groups to develop utility usage disclosure and home energy rating program on property transfers and real estate listings.
<b>Action</b>	Advocate for Residential Property Assessed Clean Energy (PACE) program and other legislative proposals to improve building energy efficiency and accelerate beneficial electrification.
<b>Action</b>	Eliminate zoning and permitting-related barriers to installation of heat pumps and insulation in set-back areas.
<b>Strategy: Target net zero emissions from commercial and institutional buildings by 2050.</b>	
<b>Action</b>	Establish Building Energy Roundtable to educate and share energy and emissions reduction efforts among commercial and institutional properties.
<b>Action</b>	Opt into the state commercial Property Assessed Clean Energy (PACE) Massachusetts financing program offered by MassDevelopment.
<b>Action</b>	Develop incentive programs to encourage energy conservation and conversion of commercial and institutional buildings to all-electric systems.
<b>Action</b>	Initiate voluntary quarterly energy/emissions reporting as a precursor to a Building Energy Reporting and Disclosure Ordinance.



## MOBILITY: GOALS, STRATEGIES, AND ACTIONS

Goal 1	Wellesley's transportation emissions decrease in line with Wellesley's GHG reduction goals.
<b>Strategy: Accelerate the shift to electric vehicles (EVs).</b>	
<b>Action</b>	Explore and implement incentives for EV adoption.
<b>Action</b>	Educate residents and municipal employees about the benefits of buying and driving EVs, including federal and state grant opportunities and operating cost savings.
<b>Action</b>	Electrify municipal vehicles, wherever possible, and consider hybrid vehicles where electric vehicles do not meet performance needs. Seek departmental input in updating the municipal Fuel-Efficient Vehicle Policy to accelerate this transition.
<b>Action</b>	Support electric vehicle charging in residential, corporate, and multi-family developments. Educate developers about available funding.
<b>Action</b>	Expand municipal electric vehicle charging infrastructure.
<b>Strategy: Promote low-impact transportation options.</b>	
<b>Action</b>	Evaluate a potential pilot program for docked, shared electric bikes and/or electric scooters at commuter rail stations and affordable housing units.
<b>Action</b>	Install sheltered, secure parking at key locations to facilitate bike, electric bike, and/or electric scooter usage.
<b>Action</b>	Reduce community-wide vehicle idling through education and ticketing.
<b>Action</b>	Research state and federal funding for electric school transportation and vehicle-to-grid battery storage technology and share with Wellesley Public Schools and school transportation vendor to facilitate migration to electric vehicles.
<b>Action</b>	Incorporate provisions for appropriate electric vehicle charging infrastructure in Municipal Sustainable Building Guidelines and in planning processes for new development.



## NATURAL RESOURCES: GOALS, STRATEGIES, AND ACTIONS

<b>Goal 1</b>	<b>Wellesley's natural assets are protected and enhanced to deliver the highest ecosystem services.</b>
<b>Goal 2</b>	<b>Nature-based solutions are prioritized to enhance the Town's resilience.</b>
<b>Strategy: Enhance and protect the existing tree canopy.</b>	
<b>Action</b>	Develop a program to maintain and improve the tree canopy.
<b>Action</b>	Augment existing free tree distribution program to prioritize locations/communities vulnerable to extreme heat impacts and tree species adapted to heat and drought.
<b>Action</b>	Explore establishment of a Town tree nursery.
<b>Action</b>	Strengthen the Tree Preservation Bylaw and community education about the Bylaw.
<b>Strategy: Advance the smart and efficient use of water by all community members.</b>	
<b>Action</b>	Identify and implement the most effective programs for residential, commercial, and institutional sector water conservation.
<b>Action</b>	Regulate outdoor water usage.
<b>Strategy: Enhance educational and engagement programs that promote and protect the benefits of Wellesley's natural resources.</b>	
<b>Action</b>	Lead by example with municipal adoption of sustainable landscaping best practices and use of electric landscaping equipment.
<b>Action</b>	Provide educational programming for residents, businesses, and institutions to promote the protection of biodiversity and electrification of landscaping equipment.
<b>Action</b>	Develop a professional landscaper database and encourage landscapers to participate in sustainable landscaping education programs.
<b>Action</b>	Mobilize volunteers to support community agriculture.
<b>Strategy: Minimize stormwater run-off.</b>	
<b>Action</b>	Explore and pursue opportunities via bylaw changes and Town approval processes to minimize impervious surfaces throughout town.
<b>Action</b>	Seek Town Meeting approval for a stormwater utility in line with federal requirements.
<b>Action</b>	Streamline the application and permitting process for removal of impervious surfaces and introduction of low impact development.
<b>Action</b>	Use nature-based solutions to minimize stormwater on municipal land.
<b>Strategy: Prioritize the role of wetlands in enhancing Wellesley's resilience to climate change.</b>	
<b>Action</b>	Identify opportunities to protect, create, expand, and connect wetlands.
<b>Action</b>	Include climate resilience in wetlands regulations.



## WASTE: GOALS, STRATEGIES, AND ACTIONS

<b>Goal 1</b>	<b>Wellesley implements programs that move the community to zero waste.</b>
<b>Goal 2</b>	<b>RDF utilization increases among residents, businesses, and institutions.</b>
<b>Strategy: The municipality leads by example on waste minimization, recycling, and food waste diversion.</b>	
<b>Action</b>	Adopt and implement zero waste goals and guidelines for municipal buildings and activities.
<b>Action</b>	Expand use of Recycle-mobile at community events.
<b>Strategy: Restart and expand food waste diversion and food rescue programs.</b>	
<b>Action</b>	Restart and expand (post-COVID) the Food Rescue Network and food rescue and food waste diversion programs in Wellesley Public Schools.
<b>Action</b>	Offer low-cost residential food waste diversion starter kits through the RDF.
<b>Action</b>	Explore the use of private haulers for residential compost pick-up.
<b>Action</b>	Establish a commercial food waste diversion program for high-volume producers.
<b>Action</b>	Explore alternative food waste endpoints and innovative regional food waste diversion technologies.
<b>Strategy: Develop a culture that minimizes single-use products and packaging.</b>	
<b>Action</b>	Explore and implement programs and/or regulations to minimize use of disposable, single-use products throughout town.
<b>Action</b>	Advocate for legislation or regulations that extend producer responsibility for product packaging.
<b>Action</b>	Advocate for an expanded Bottle Bill.
<b>Strategy: Educate the community about opportunities and benefits regarding a zero-waste goal.</b>	
<b>Action</b>	Provide educational programs, resources, and incentives that encourage and enable waste minimization, food waste diversion, recycling, and upcycling throughout the community.
<b>Action</b>	Explore opportunities to promote commercial composting of compostable containers and utensils.
<b>Strategy: Promote the environmental and financial benefits of the RDF.</b>	
<b>Action</b>	Publicize how RDF utilization benefits both the environment and Town finances. Tailor messaging to specific audiences such as businesses and colleges, community members who do not hold an RDF permit, and new residents.
<b>Strategy: Expand access to and services at the RDF.</b>	
<b>Action</b>	Simplify the RDF sticker process for renters and residents without computers or cars.
<b>Action</b>	Expand hazardous waste disposal and electronic waste recycling at the RDF by increasing the number of collection days and becoming a permanent, regional household hazardous waste facility.